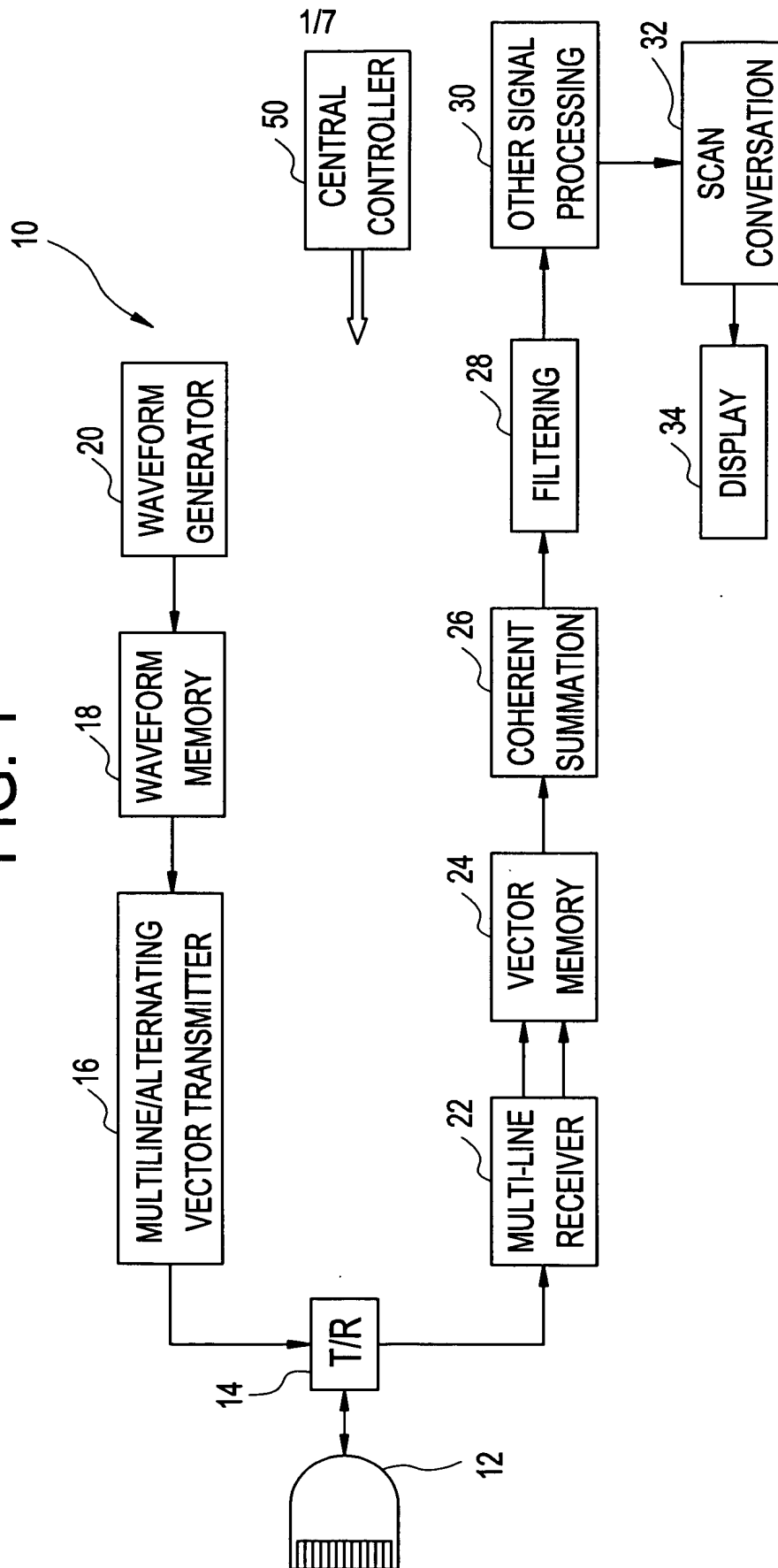


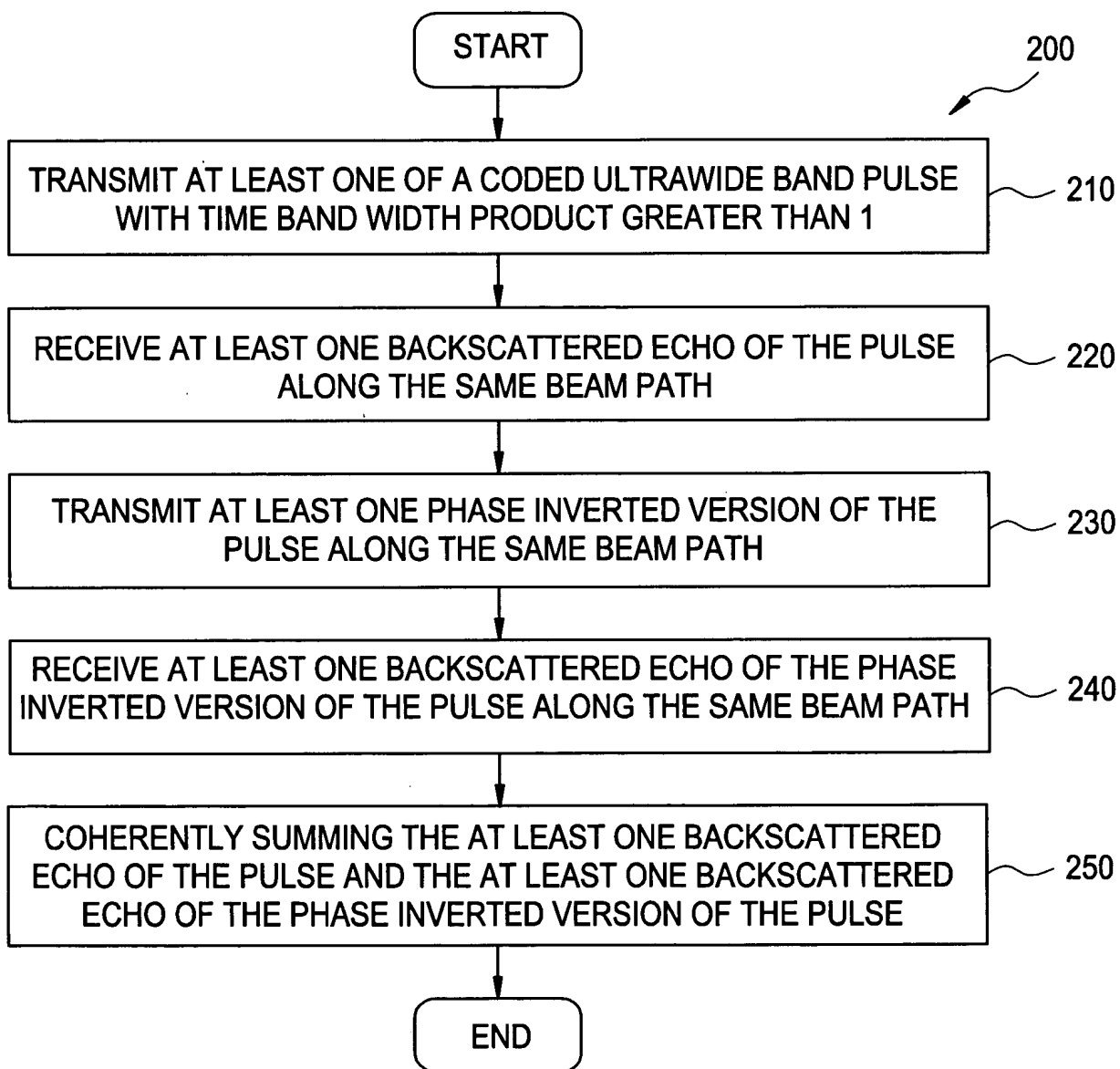


FIG. 1



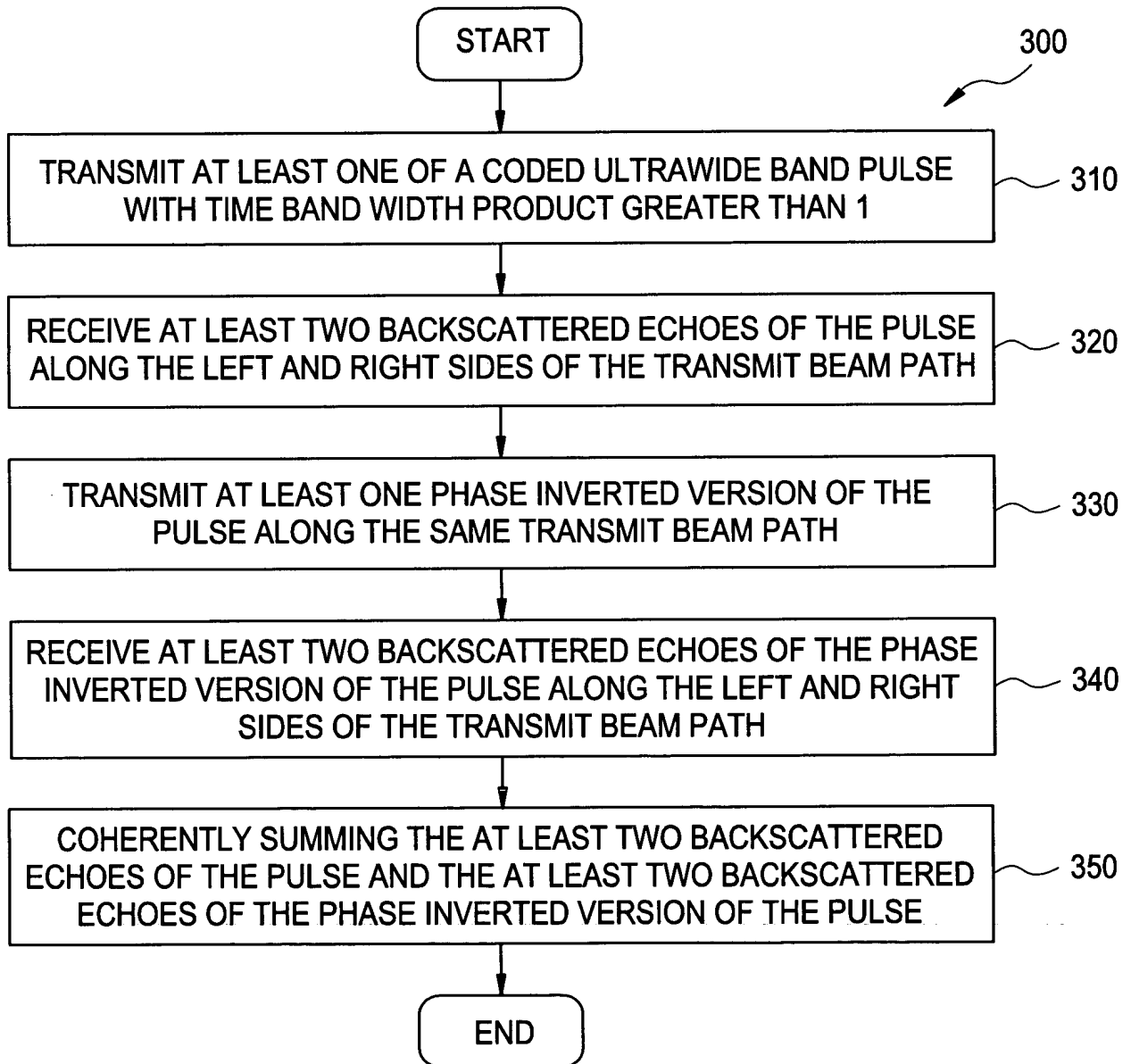
2/7

FIG. 2



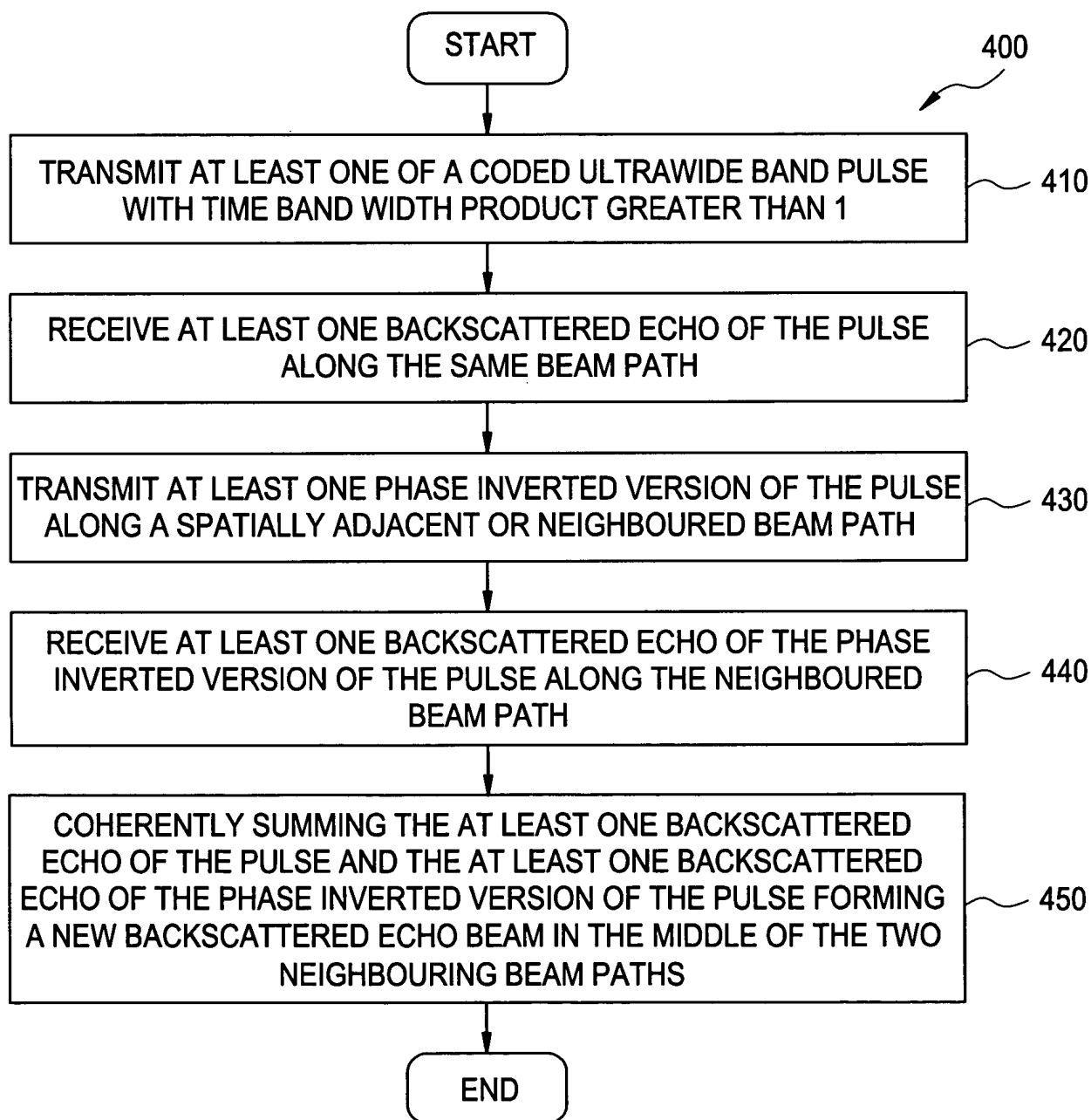
3/7

FIG. 3



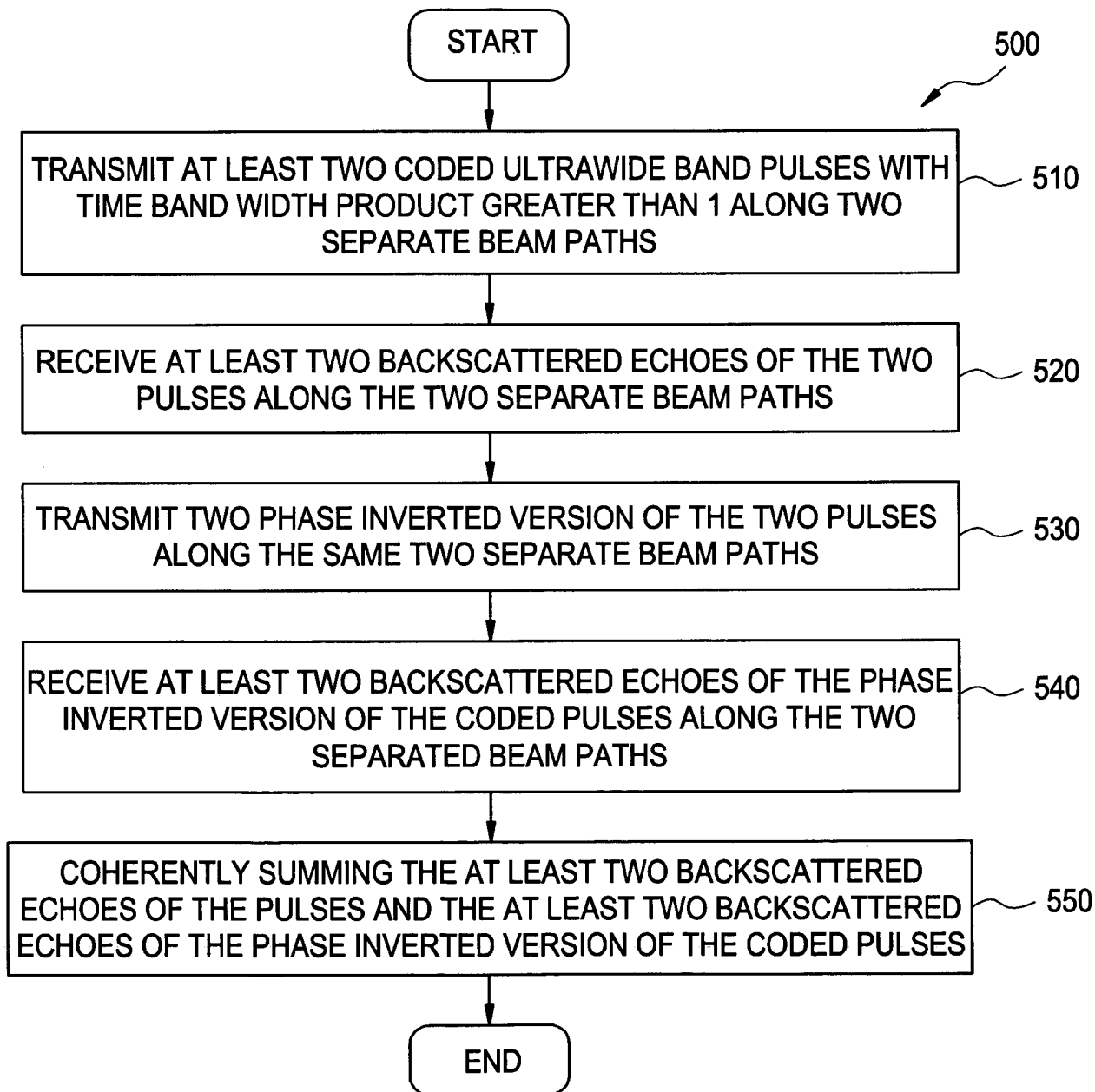
4/7

FIG. 4



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FIG. 5



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FIG. 6

Spectrum of the Ultra-wide band pulse and a regular pulse with the same time duration and center frequency

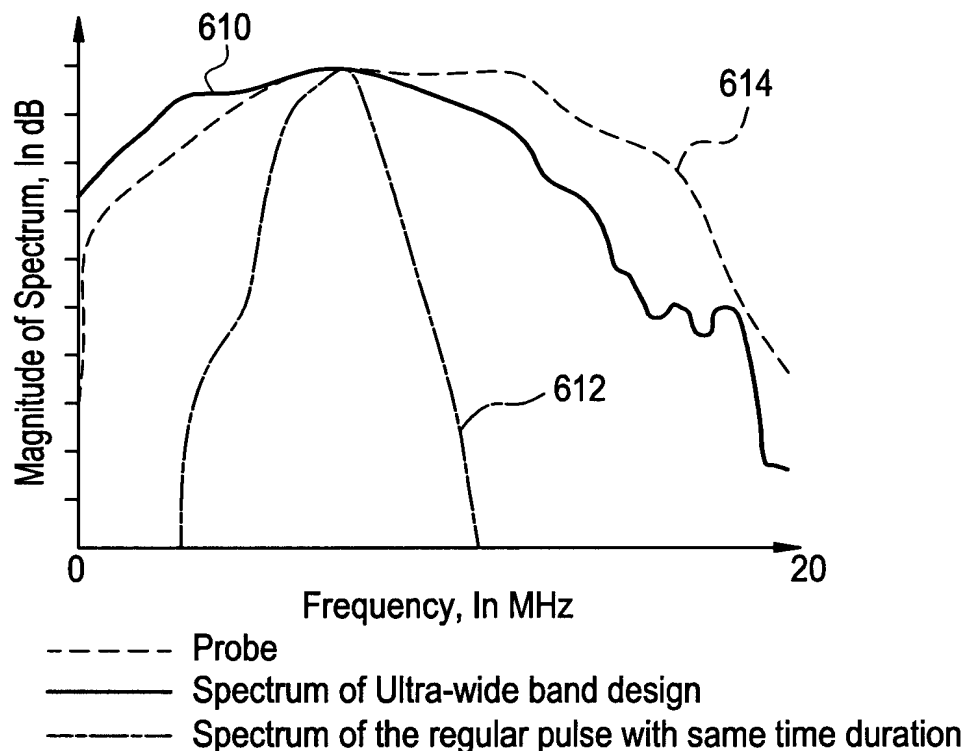


FIG. 7

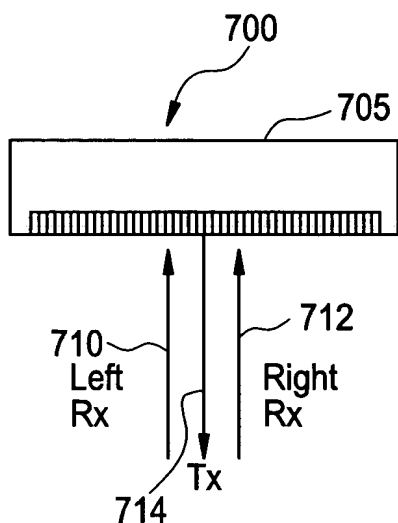


FIG. 8

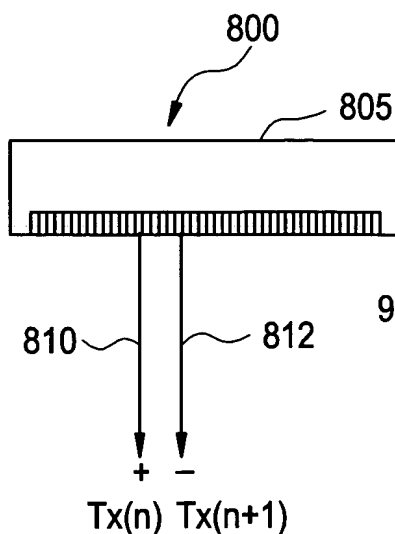


FIG. 9

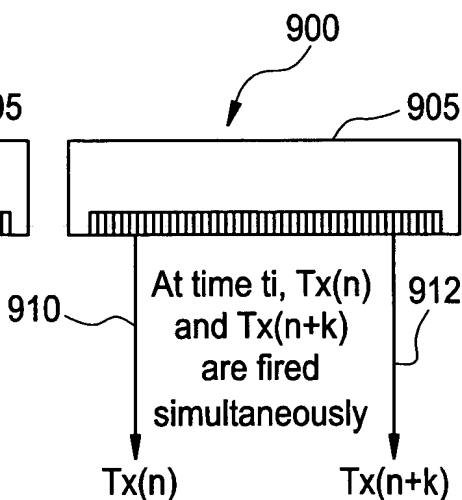


FIG. 10

Attenuation effect on the Ultra-wide band transmitted signal

